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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/445,088	12/02/1999	YUICHIRO NAKAYA	520.37902X00	9448

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EXAMINER

LEE, RICHARD J

ART UNIT PAPER NUMBER

2613

DATE MAILED: 01/16/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/445,088

Applicant(s)

Nakaya

Examiner

Richard Lee

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2613



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

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1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

✓ 2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 250 words. It is important that the abstract not exceed 250 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

✓ 3. The abstract of the disclosure is objected to because the abstract should be limited to a single paragraph. Correction is required. See MPEP § 608.01(b).

✓ 4. Figures 1 and 2 should be designated by a legend such as "Prior Art" (see pages 4-5 of the Specification) in order to clarify what is applicant's invention. (see M.P.E.P. 608.02(g)).

5. The drawings are objected to because:

✓ (1) all diagrammatic blocks are required to be labeled to indicate contents or function (37 C.F.R. 1.83(a), 1.84(o)). Therefore, diagrammatic block 616 as shown in Figure 6 of the drawings should be labeled;

✓ (2) DCT block element "605" as shown in Figure 6 of the drawings should be changed to "604" in order to agree with page 32 of the Specification;

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- ✓ (3) Quantizer block element "606" as shown in Figure 6 of the drawings should be changed to "605" in order to agree with page 32 of the Specification;
- ✓ (4) block element "600" as shown in Figure 6 of the drawings have not been identified in the Specification;
- ✓ (5) block element "1201" of Figure 12 of the drawings have not been identified in the Specification;
- ✓ (6) "VARIABLE" as shown at block element 1302 of Figure 13 should be changed to "VARIABLE N" in order to agree with page 39 of the Specification;
- ✓ (7) "VARIABLE" as shown at block element 1304 of Figure 13 should be changed to "VARIABLE N" in order to agree with page 39 of the Specification; and
- ✓ (8) block elements "1311" and "1315" as shown in Figure 13 of the drawings have not been identified in the Specification.

Correction is required.

6. The disclosure is objected to because of the following informalities:

- ✓ (1) at page 8, line 18 of the Specification, should "j+p" be changed to "j+q" ? (see page 8, line 9 of the Specification);
- ✓ (2) at page 32, line 15 of the Specification, "1002" should be changed to "1102" in order to agree with Figure 11 of the drawings;
- ✓ (3) at page 32, line 22 of the Specification, "1104" should be changed to "908" in order to agree with Figure 11 of the drawings;

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(4) the reference to "motion compensation processor 901" as shown at page 37, line 8 of the Specification is not shown in any of the figures of the drawings and

✓ (5) at page 42, line 24 of the Specification, "1308" should be changed to "1309" in order to agree with Figure 13 of the drawings.

Appropriate correction is required.

7. Claims 1-52 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For examples:

(1) claim 1, lines 16-17, "the horizontal and vertical coordinates" shows no clear antecedent basis;

(2) claim 1, lines 17-18, "the sampling points" shows no clear antecedent basis;

(3) claim 1, line 21, line 42, claim 2, line 21, line 42, claim 29, line 63, line 67, claim 30, line 56, line 61, "the aforesaid" should be changed to "said" for clarity, respectively;

(4) claim 2, lines 16-17, "the horizontal and vertical coordinates" shows no clear antecedent basis;

(5) claim 2, lines 17-18, "the sampling points" shows no clear antecedent basis;

(6) claim 2, line 44, "j+p" should be changed to "j+q" for clarity (see above paragraph (6), item (1));

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(7) claim 3, lines 12-15, lines 25-28, lines 33-36, these equations are different from that shown at pages 22-23 of the Specification and as such renders the claim indefinite;

(8) claim 3, line 21, before “uR”, “(” should be inserted for clarity;

(9) claim 4, line 1, “prediction” should be changed to “predicted” in order to provide proper antecedent basis for the same as specified at claim 2, lines 1-2;

(10) claim 4, line 22, before “uB”, “(” should be properly inserted for clarity;

(11) claim 4, line 26, before “vB”, “,” should be inserted for clarity;

(12) claim 4, lines 13-16, lines 25-27, lines 32-35, these equations are different from that shown at pages 22-23 of the Specification and as such renders the claim indefinite;

(13) claim 5, line 3, after “where”, “a” should be changed to “ α ” should be inserted for clarity;

(14) claims 17 to 23 and 26 are indefinite since these respective multiple dependent claims depend from multiple dependent claim 6;

(15) claim 29, lines 5-8, the phrase “a second transforming unit which **applies an inverse transformation unit to part of the output of the first transforming unit** to obtain a decoded differential image of said differential image” as claimed is indefinite in that it is unclear what is considered applying an inverse transformation unit to part of the output of the first transforming unit. In addition, “said differential image” shows no clear antecedent basis;

(16) claim 29, lines 12-13, line 26, lines 30-31, line 68, “said immediately preceding frame” shows no clear antecedent basis, respectively;

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(17) claim 29, line 13, line 26, “the input image” shows no clear antecedent basis, respectively;

(18) claim 29, lines 24-25, “the immediately preceding frame” shows no clear antecedent basis;

(19) claim 30, line 5, line 16, after “image”, “signal” should be properly inserted in order to provide proper antecedent basis for the same as specified at lines 3-4, respectively;

(20) claim 30, lines 7-10, claim 29, lines 5-8, the phrase “a second transforming unit which **applies an inverse transformation unit to part of the output of the first transforming unit** to obtain a decoded differential image of said differential image” as claimed is indefinite in that it is unclear what is considered applying an inverse transformation unit to part of the output of the first transforming unit;

(21) claim 30, lines 14-15, line 27, lines 29-30, line 62, “said immediately preceding frame” shows no clear antecedent basis;

(22) claim 30, lines 25-26, “the immediately preceding frame” shows no clear antecedent basis;

(23) claim 30, line 41, “the sampling points” shows no clear antecedent basis;

(24) claim 30, line 42, “integhers” should be changed to “integers” for clarity;

(25) claim 30, line 57, “j+p” should be changed to “j+q” (see line 46 and above paragraph (6), item (1));

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(26) claim 31, lines 12-14, lines 24-26, lines 31-34, these equations are different from that shown at pages 22-23 of the Specification and as such renders the claim indefinite;

(27) claim 31, line 25, before “vR”, “,” should be inserted for clarity;

(28) claim 32, line 1, “interframe predicted image” should be deleted in order to provide proper antecedent basis for the same as specified at claim 30, line 1;

(29) claim 32, lines 12-15, lines 25-27, lines 32-35, these equations are different from that shown at pages 22-23 of the Specification and as such renders the claim indefinite;

(30) claim 32, line 21, before “uB”, “(“ should be properly inserted for clarity;

(31) claim 32, line 26, before “vB”, “,” should be inserted for clarity;

(32) claim 33, line 1, claim 34, line 1, “interframe predicted image” should be deleted in order to provide proper antecedent basis for the same as specified at claim 29, line 1, respectively;

(33) claim 41, line 2, “a” should be changed to “ α ” for clarity;

(34) claim 47, line 5, “said differential image” shows no clear antecedent basis;

(35) claim 48 is indefinite since this multiple dependent claim depends from multiple dependent claim 6;

(36) claim 49 is indefinite since this multiple dependent claim depends from multiple dependent claims 6 and 17-22;

(37) claim 51 is indefinite since this multiple dependent claim depends from multiple dependent claims 6 and 23; and

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(38) claim 52 is indefinite since this multiple dependent claim depends from multiple dependent claims 6 and 26.

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. Claims 1-16 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Independent claims 1 and 2 respectively sets forth a method of synthesizing an interframe predicted image as described in the preamble, and thereafter recites four steps of calculations that solves a purely mathematical problem without limitation to a practical application, essentially a series of steps to be performed on a computer, and merely manipulates an abstract idea which lacks any use. And since dependent claims 3-16 are directed to further computational limitations, claims 1-16 as a whole for reasons above do not fall within the statutory classes set forth in 35 U.S.C. 101.

10. Due to the indefiniteness of the claims as pointed out in the above paragraph (7), an art rejection for the claims will not be made at this time.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nakaya (6,295,376; 6,008,852; 6,178,202), Nakaya et al (5,963,259; 5,684,538; 6,134,271; 6,285,713; 6,028,631; 5,949,484), and Suzuki et al disclose various types of video coding devices.

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12. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for formal communications intended for entry)

(for informal or draft communications, please label "PROPOSED" or "DRAFT")

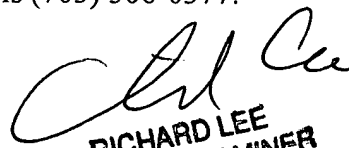
Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA., Sixth Floor (Receptionist).

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Lee whose telephone number is (703) 308-6612. The Examiner can normally be reached on Monday to Friday from 8:00 a.m. to 5:30 p.m, with alternate Fridays off.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group customer service whose telephone number is (703) 306-0377.

Richard Lee/rl

1/11/02


RICHARD LEE
PRIMARY EXAMINER